

CLAIMS

What is claimed is:

1. A method in a data processing system (home) for managing transport of a data stream over a communication link from a remote data processing system (remote) to a client data processing system (client) within a network, said method comprising the steps of:

creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and remote; and

instructing the remote to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives the remote data stream within the association.

2. The method according to claim 1, wherein the association is created as a SCTP association and the plurality of addresses are specified to the client as IP addresses of the home using the multi-homed feature.

3. The method according to claim 2, wherein the step of instructing includes providing the remote with a stream identification number and an IP address for the client.

4. The method according to claim 2, wherein the step of instructing includes providing the remote with a range of transmission sequence numbers and instructing the remote to transmit the remote data stream within the range.

5. The method according to claim 4, further comprising the steps of:
receiving an acknowledgement from the remote indicating that the client has received a remote data stream within the range;
providing the remote with a new range of transmission sequence numbers, and
instructing the remote to transmit the remote data stream within the new range.
6. The method according to claim 2, further comprising the steps of:
creating an association in the remote with the client without receiving an INIT at the remote from the client; and
transmitting the remote data stream to the client using an IP address of the remote specified by the home in an INIT ACK message sent to the client included in creating the association.
7. The method according to claim 1, wherein the step of creating includes creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and a plurality of remotes, and the step of instructing includes instructing each remote of the plurality of remotes to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives a plurality of remote data streams from the plurality of remotes within the same association.
8. The method according to claim 1, further comprising the step of:
transmitting a stream aggregation command from the home to the remote specifying a stream identifier and an address of the client to be used for transmission of the remote data stream.

9. The method according to claim 1, further comprising the step of:
transmitting a transmission sequence range command from the home to the remote specifying a range of transmission sequence numbers to be used for transmission of the remote data stream.

10. A data processing system (home) for managing transport of a data stream over a communication link from a remote data processing system (remote) to a client data processing system (client) within a network, comprising:

means for creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and remote; and

means for instructing the remote to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives the remote data stream within the association.

11. The data processing system according to claim 10, wherein the association is created as a SCTP association and the plurality of addresses are specified to the client as IP addresses of the home using the multi-homed feature.

12. The data processing system according to claim 11, further comprising means for providing the remote with a stream identification number and an IP address for the client.

13. The data processing system according to claim 11, further comprising means for providing the remote with a range of transmission sequence numbers and instructing the remote to transmit the remote data stream within the range.

14. The data processing system according to claim 13, further comprising:

means for receiving an acknowledgement from the remote indicating that the client has received a remote data stream within the range;

means for providing the remote with a new range of transmission sequence numbers, and

means for instructing the remote to transmit the remote data stream within the new range.

15. The data processing system according to claim 10, further comprising: means for creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and a plurality of remotes, and means for instructing each remote of the plurality of remotes to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives a plurality of remote data streams from the plurality of remotes within the same association.

16. The data processing system according to claim 10, further comprising:
means for transmitting a stream aggregation command from the home to the remote specifying a stream identifier and an address of the client to be used for transmission of the remote data stream.

17. The data processing system according to claim 10, further comprising:
means for transmitting a transmission sequence range command from the home to the remote specifying a range of transmission sequence numbers to be used for transmission of the remote data stream.

18. An article of manufacture comprising machine-readable medium including program logic embedded therein that causes control circuitry in a data processing system (home) for managing transport of a data stream over a communication link from a remote data processing system (remote) to a client data processing system (client) within a network to perform the steps of:

creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and remote; and

instructing the remote to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives the remote data stream within the association.

19. The article of manufacture of Claim 18, wherein the association is created as a SCTP association and the plurality of addresses are specified to the client as IP addresses of the home using the multi-homed feature.

20. The article of manufacture of Claim 19, wherein the step of instructing includes providing the remote with a stream identification number and an IP address for the client.

21. The article of manufacture of Claim 19, wherein the step of instructing includes providing the remote with a range of transmission sequence numbers and instructing the remote to transmit the remote data stream within the range.

22. The article of manufacture of Claim 21, further comprising the steps of:
receiving an acknowledgement from the remote indicating that the client has received a remote data stream within the range;
providing the remote with a new range of transmission sequence numbers, and

instructing the remote to transmit the remote data stream within the new range.

23. The article of manufacture of Claim 19, further comprising the steps of:
creating an association in the remote with the client without receiving an INIT at the remote from the client; and
transmitting the remote data stream to the client using an IP address of the remote specified by the home in an INIT ACK message sent to the client included in creating the association.

24. The article of manufacture of Claim 18, wherein the step of creating includes creating an association between the client and home for transfer of a plurality of data streams between the client and home as a function of a plurality of addresses of the home and a plurality of remotes, and the step of instructing includes instructing each remote of the plurality of remotes to transfer a remote data stream to the client using one or more of the plurality of addresses of the remote used to create the association such that the client receives a plurality of remote data streams from the plurality of remotes within the same association.

25. The article of manufacture of Claim 18, further comprising the step of:
transmitting a stream aggregation command from the home to the remote specifying a stream identifier and an address of the client to be used for transmission of the remote data stream.

26. The article of manufacture of Claim 18, further comprising the step of:
transmitting a transmission sequence range command from the home to the remote specifying a range of transmission sequence numbers to be used for transmission of the remote data stream.